

CLAIMS

1. A power supply device for a vehicle comprising:
 - an electronic controller for receiving at least one of information
 - 5 supplied from a brake pedal and information in response to a driving status of the vehicle, and for outputting information to a brake about braking the vehicle based on the information received by the electronic controller;
 - a battery for powering the brake via the electronic controller; and
 - an auxiliary power supply for powering the brake via the electronic
 - 10 controller when the battery encounters an abnormality, wherein the auxiliary battery includes a capacitor unit formed of a plurality of capacitors, a power supply section for allowing the capacitor unit to power the electronic controller when the battery operates not only abnormally but also normally, and a compulsory operating section for operating the power supply section, wherein
 - 15 an operating status of the power supply section is monitored during a normal operation of the battery.
2. The power supply device for a vehicle as defined in claim 1, wherein
- 20 monitoring the operating status of the power supply section is halted when one of the battery and the auxiliary power supply operates abnormally.
3. The power supply device for a vehicle as defined in claim 1 further comprising an output detector for detecting at least one of an output voltage and an output current from the capacitor unit, wherein the output detector is
- 25 used for monitoring the operating status of the power supply section.
4. The power supply device for a vehicle as defined in claim 3, wherein

the output detector detects at least one of the output voltage and the output current from the capacitor unit in a given time after the power supply section starts operating.

5 5. The power supply device for a vehicle as defined in claim 3, wherein whether or not the power supply section is defective is determined by at least one of a comparison of an output voltage detected by the output detector after the power supply section operates for a given time with a given reference voltage and a comparison of an output current detected by the output detector
10 after the power supply section operates for a given time with a given reference current.

6. The power supply device for a vehicle as defined in claim 5, wherein a determination about whether or not the power supply section is defective is
15 carried out at a given interval.

7. The power supply device for a vehicle as defined in claim 5, wherein when the determination finds that the power supply section operates abnormally, information about the abnormality is supplied to the electronic
20 controller.

8. The power supply device for a vehicle as defined in claim 5, wherein when the battery outputs a normal voltage but the voltage is not higher than a voltage of the capacitor unit, the determination about whether or not the power
25 supply section is defective is not carried out.

9. The power supply device for a vehicle as defined in claim 1, wherein

the power supply section is formed of a switch of a field effect transistor.